HAKAN OKAY

SOFTWARE DEVELOPER

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EXPERIENCE

Software Developer

TwinsMusic Enterprises

September 2023 - Present

Ottawa, ON

- Redesigned and redeveloped Musme Library, an online, subscription-based music library for content creators using modern web technologies, reducing page load times by 50%. Mentored the other four contributors and did code reviews.
- Implemented a new content management system to easily create, access, delete or update the platform's content and manage different aspects of the website and served it over a dashboard accessible through JWT authentication.
- Migrated to a new, secure system architecture handling how the content should be stored, accessed and downloaded using AWS S3 pre-signed URLs and JWT authentication. Used Prisma to create the data model to log/store user information.
- Integrated cloud platforms and services to create a secure, scalable platform. Used Planetscale for the MySQL database, Uploadthing for handling S3 file uploads, Vercel for deployments and hosting and GitHub Actions for CI/CD pipelines.

Freelance Software Developer

June 2022 - Present Ottawa, ON

hakanokay.dev

- Trained a machine learning model for an e-commerce business serving \sim 4700 users monthly. The model predicts the likelihood of conversion based on user actions, resulting in 15% revenue growth through personalized marketing.
- Developed an API using FastAPI to serve machine learning models, containerized it using Docker and deployed it on Google Cloud Run for security and scalability. Created an interface to upload new models by drag & dropping.
- Developed a web application using Next.js, FastAPI, MySQL and Docker to manage the sale records of a store, saving time spent on data management for a team of 8 people, increasing overall efficiency managing sales transactions.
- Rewrote a PHP-based web service responsible for handling external CRM data in Python. Updated the data extraction and transformation scripts, increasing efficiency by 25%. Implemented additional data validation steps using Pydantic.

Software Developer

March 2022 - February 2023

Bruin

Ottawa, ON

- Built an SQL generation engine using Jinja, Python and SQL to automate the data modelling and warehousing process for products with similar data characteristics, resulting in a 20% faster onboarding process.
- Debugged issues within the parser of a specialized SQL-like querying language designed for simpler and more efficient cloud querying. Added unit tests for bug-causing edge cases, mitigating the risk of future errors.
- Implemented new features to a CLI tool enabling cross-functional teams to validate and run data transformations using SQL and Python on the same pipeline, leading to a 30% increase in development efficiency.
- Created and optimized RESTful API endpoints querying BigQuery warehouses to generate static analytics reports, improving response times by 15%, adding support for customizations, and integrating more KPIs.
- Built and managed ETL pipelines to process ∼1 billion rows of user-generated data daily, originating from 10 clients across 35 mobile applications and various backends. Used Snowflake, BigQuery and Redshift for warehousing.

SKILLS

Languages & Technologies: Python, SQL, TypeScript, JavaScript, Go, Java

Libraries & Frameworks: React, Next.js, Node.js, Spring Boot, Tailwind, FastAPI

Tools & Platforms: Linux, Git, Docker, Airflow, Prisma, GCP, AWS Databases & Warehouses: MySQL, Postgres, MongoDB, BigQuery

EDUCATION

Algonquin College

Diploma in Computer Programming | Honours

Ottawa, ON

Miuul & Data Science Academy

Certificate of Data Science and Machine Learning | Bootcamp

December 2021 - March 2022 Izmir, Turkey

September 2022 - February 2024

Akdeniz University

Bachelor of Science in Engineering

September 2014 - September 2019 Antalya, Turkey